"Dedicated to Public Service"

THE RADIATOR

Chico Golden Empire Amateur Radio Society, Inc.

SPECIAL SERVICE CLUB

W6RHC
IRLP #8170

www.gearsw6rhc.org

P.O.Box 202 Chico, CA 95927

October 2022 Newsletter	GEARS Founded August 13, 1939

GEARS News

We lost a good and active GEARS member last month, Dale Anderson KK6EVX. Dale was in charge of Butte County ARES, a GEARS Board member and a regular participant at Field Day. He will be missed.

At the October GEARS meeting, Michael Favor N6FAV gave an excellent presentation about programming hand-held radios. He called it “Buttonology.” We also discussed ARES. Since Dale is SK Ted Cochran KK6VHZ will be taking over ARES.

The Monday night meeting time seems to be working out well. We plan to continue meetings at the Chico Public Library with the next meeting on October 17h.

October is when we start the nominations for GEARS Board officers for next year. If you would like to serve on the board please contact one of the current officers. Our Board meetings are held online, if you would like to attend please contact me and I’ll send you a link.

We are always looking for ideas or suggestions for GEARS meeting topics. We are open to guest speakers too. If you or you know someone has something to share with the club please let us know.

VEC Testing is coming up on October 2nd at The Chico Elks Lodge. Contact Tom Rider, W6JS 530-514-9211 for more information.

Scouts Jamboree on the Air (JOTA) is October 15th. This was a lot of fun last year, so come on out if you can. 10am – 2pm at 102 W. 11th Street, Chico (Chico Country Day Campus) For questions contact Nathan Methvin-Terry: methvinterry@gmail.com

Don't forget breakfast Saturday October 8th, 9:00am at the Farmer's Skillet.

‘73

Jim Matthews K6EST
jiminchico@yahoo.com

October 2022 Calendar

Sun	Mon	Tue	Wed	Thu	Fri	Sat
						1
2 2pm VEC testing 8pm OARS Net	3 7pm GARS Net 8pm ARES Net 7pm GEARS Board Meeting	4 7pm PARS Net 7:30pm GEARS Net	5	6 7:30pm Simplex Net	7 7pm OARS meeting 7pm GARS meeting	8 9am Chico Breakfast
9 8pm OARS Net	10 7pm GARS Net 8pm ARES Net	11 7pm PARS Net 7:30pm GEARS Net	12	13 7:30pm Simplex Net	14	15 10am JOTA
16 8pm OARS Net	17 6pm GEARS Meeting 7pm GARS Net 8pm ARES Net	18 7pm PARS Net 7:30pm GEARS Net	19	20 7:30pm Simplex Net	21	22 9am OARS Breakfast
23 / 30 8pm OARS Net	24 / 31 7pm GARS Net 8pm ARES Net	25 7:30pm GEARS Net	26	27 7:30pm Simplex Net	28	29

VEC Testing, FCC License Exam available by appointment. For information or registration call Tom Rider, W6JS 530-514-9211
Chico Breakfast 2nd Saturday 9am Farmers Skillet Cohasset Rd, Chico
GEARS Board Meeting 1st Monday 7pm by zoom.
PARS Meeting 2nd Thursday 6:30pm, doors open 6pm Old Magalia Community Resource Center
OARS Meeting Second Friday of the month, St. Pauls Episcopal Church Hall, Oroville.
GARS Meeting Second Friday of the month, Lutheran Church Hall, Artois.
GEARS Meeting, October 17th Doors open 6pm, meeting 7pm at Chico Public Library, 1108 Sherman Ave, Chico
OARS Breakfast 4th Saturday of the month, at Cornucopia of Oroville.

NETS:
OARS Club Net Sunday 8pm 146.655 Mhz - PL 136.5
GARS Club Net Monday,7:00 pm 147.105 MHz + PL 110.09, secondary: 146.850 MHz-PL 110.9
Yuba Sutter Club Net Monday 7pm 146.085 MHz + PL 127.3
GEARS Club Net Tuesdays 7:30 PM 146.850 MHz - PL 110.9
PARS Club Net Tuesday 7pm 145.290 - PL 110.9
Simplex Net Thursday 7:30 p.m. 146.52 no tone
Yuba Sutter ARES Net Thursdays 7pm 146.085 MHz + PL 127.3
Sacramento Valley Traffic Net Nightly 9:00 PM 146.850 MHz - PL 110.9

Amateur Radio Helps Disabled Sailboat to Port

From AARL

Jeanne (Jan) Socrates, VE0JS/MM / KC2IOV

On September 7, 2022, Jeanne (Jan) Socrates, VE0JS/MM / KC2IOV, and her sailboat, the SV Nereida, set sail from Cape Flattery, the north western most point of the contiguous US. She was on her way to visit friends in San Francisco, California, but 2 days of 35 knot winds and storms left her sailboat disabled and her onboard radio equipment marginally operational. Amateur operators in New Mexico, California, and Canada, and members of Group 7.155 heard her requests for assistance.

Gil Gray, N2GG, was able to contact Socrates on 40 meters. "Her power was extremely low, and she was unable to communicate on 14.300 MHz to notify the monitoring group on that frequency," said Gray. "She needed help with wind and sea conditions, and tidal data for San Francisco Bay," he added.

Low-power output on the HF radio made it very difficult to get Q5 copy, which would typically be Q2 or Q3. With the help of several software-defined radio (SDR) operators in Utah, California, and Maui, Hawaii, they were able to glean enough copy to understand her situation and answer questions for her navigation.

Gray; Jonathan Ayers, AI6NA, and Edwin E. Jenkins, K6EXY, are all experienced sailors. They were able to make periodic contact with Socrates and give her updated wind reports. Their last contact was on Monday, September 12, at 11:00 AM (MSDT). By this time, Socrates was sailing with only the forward sail on her 38-foot sloop. Fortunately, a "following wind" kept her moving without a mainsail. As she approached the Golden Gate Bridge, Socrates was able to use the tidal information passed on by amateur radio operators to make it safely to Berkeley Marina in San Francisco Bay.

"I wouldn't call it a rescue," said Socrates, "just good amateur radio assistance – and I'm grateful for their help."

Socrates is 81 years old and the oldest person to have ever sailed around the world unassisted. Once her sailboat is repaired, she will sail again, not for records, but for the enjoyment of sailing the high seas.

HELPING SECURE AMATEUR RADIO'S DIGITAL FUTURE

by Tom Nardi

From the Netflix show Stranger Things

The average person's perception of a ham radio operator, assuming they even know what that means, is more than likely some graybeard huddled over the knobs of a war-surplus transmitter in the wee small hours of the morning. It's a mental image not doing the hobby any favors when it comes to bringing in new blood.

In reality, a modern ham's toolkit includes a wide array of technologies that are about as far away from your grandfather's kit-built rig as could be — and there's exciting new protocols and tools on the horizon. To ensure a bright future for amateur radio, these technologies need to be nurtured the word needs to be spread about what they can do. Along the way, we'll also need to push back against stereotypes that can hinder younger operators from signing on.

On the forefront of these efforts is Amateur Radio Digital Communications (ARDC), a private foundation dedicated to supporting amateur radio and digital communication by providing grants to scholarships, educational programs, and promising open source technical projects. For this week's Hack Chat, ARDC Executive Director Rosy Schechter (KJ7RYV) and Staff Lead John Hays (K7VE) dropped by to talk about the future of radio and digital communications.

Rosy kicked things off with a brief overview of ARDC's fascinating history. The story starts in 1981, when Hank Magnuski had the incredible foresight to realize that amateur radio packet networks could benefit from having a dedicated block of IP addresses. In those early days, running out of addresses was all but unimaginable, so he had no trouble securing 16.7 million IPs for use by licensed amateur radio operators. This block of addresses, known as AMPRNet and then later 44Net, was administered by volunteers until ARDC was formed in 2011 and took over ownership. In 2019, the decision was made to sell off about four million of the remaining IP addresses — the proceeds of which went into an endowment that now funds the foundation's grant programs.

So where does the money go? The ARDC maintains a list of recipients, which provides for some interesting reading. The foundation has helped fund development of GNU Radio, supported the development of an open hardware CubeSat frame by the Radio Amateur Satellite Corporation (AMSAT), and cut a check to the San Francisco Wireless Emergency

Mesh to improve communications in wildfire-prone areas. They even provided $1.6 million towards the restoration of the MIT Radio Society's radome and 18-foot dish.

Of all the recipients of ARDC grants, the M17 project garnered the most interest during the Chat. This community of open source developers and radio enthusiasts is developing a next-generation digital radio protocol for data and voice that's unencumbered by patents and royalties. In their own words, M17 is age that, admittedly, isn't entirely off the mark in some cases. But it's also a gross over-simplification, and a generalization that isn't focused on "radio hardware designs that can be copied and built by anyone, software that anyone has the freedom to modify and share to suit their own needs, and other open systems that respect your freedom to tinker." They're definitely our kind of folks — we first covered the project in 2020, and are keen to see it develop further.

John says the foundation has approximately $6 million each year they can dole out, and that while there's certainly no shortage of worthwhile projects to support as it is, they're always looking for new applicants. The instructions and guides for grant applications are still being refined, but there's at least one hard requirement for any project that wants to be funded by the ARDC: it must be open source and available to the general amateur population.

Of course, all this new technology is moot if there's nobody to use it. It's no secret that getting young people interested in amateur radio has been a challenge, and frankly, it's little surprise. When a teenager can already contact anyone on the planet using the smartphone in their pocket, getting a ham license doesn't hold quite the same allure as it did to earlier generations.

The end result is that awareness among youth is low. During the Chat, one participant recounted how he had to put Netflix's Stranger Things on pause so he could explain to his teenage son how the characters in the 1980s set show were able to communicate across long distances using a homemade radio. Think about that for a minute — in a show about nightmarish creatures invading our world from an alternate dimension, the hardest thing for this young man to wrap his head around was the fact a group of teenagers would be able to keep in touch with each other without the Internet or phone lines to connect them.

So its no surprise that John says the ARDC is actively looking for programs which can help improve the demographics of amateur radio. The foundation is looking to not only bring younger people onboard, but also reach out to groups that have been traditionally underrepresented in the hobby. As an example, he points to a grant awarded to the Bridgerland Amateur Radio Club (BARC) last year to bolster their youth engagement program. Funds went towards putting together a portable rig that would allow students to communicate with the International Space Station, and the development of hands-on workshops where teens will be able to launch, track, and recover payloads on a high altitude balloon. Let's see them do that on their fancy new smartphone.

We want to thank everyone at Amateur Radio Digital Communications for their efforts to support the present and future of amateur radio and digital communication.

GEARS Century Members

Dale Anderson, Kent Hastings,
Bennett Laskey, Jim Van Sickle
We thank these members for their extra support.

GEARS Officers:

President.....….....Paul Stewart, N6PAS
Vice-President.....Kent Hastings, WA6ZFY
Treasurer.....Jim Matthews, K6EST
Director.....Bennett Laskey, K6CEL
Director.....Rich Astley, N3UOR
Past President.....Jim Matthews, K6EST
VEC.....Tom Rider, W6JS

GEARS Dues and Donations can be made online at
paypal.me/w6rhc
Or by mail to:
GEARS
PO Box 202
Chico, CA 95927

Your dues and contributions support our local repeaters, ARES, and outreach events to keep amateur radio alive in our area. GEARS also makes donations to support other local repeaters.

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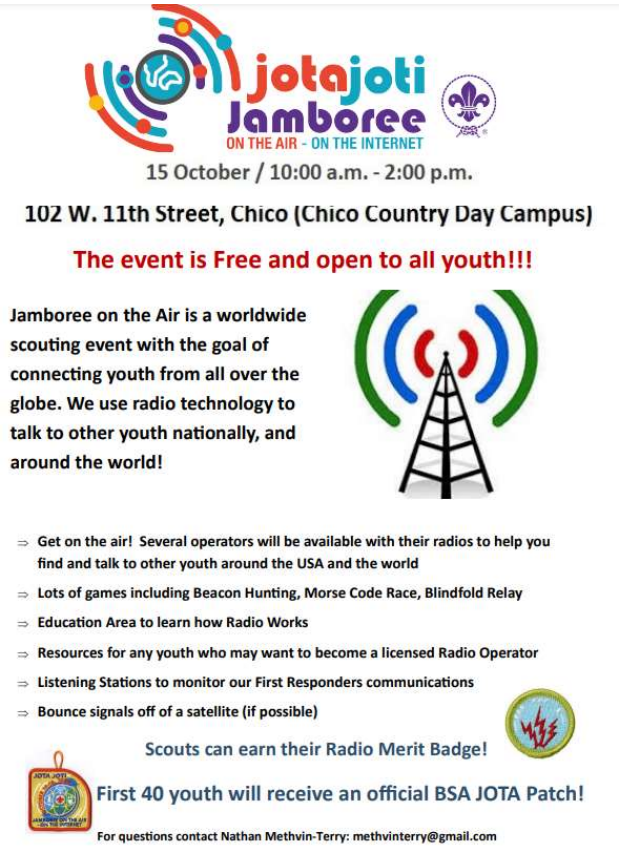
www.facebook.com

GEARS Newsletter edited by Jim Matthews K6EST
JiminChico@yahoo.com



For more information contact Nathan Methvin-Terry:
methvinterry@gmail.com